



## Dell Storage MD3060e Dense Enclosure

The MD3060e dense enclosure makes server expansion affordable. It increases capacity and efficiency behind Dell™ PowerEdge™ server workloads. The versatile mix and match hard drive option supports more capacity than ever, allowing you to save space within your data center, and decrease power and cooling expenses. Administrators can non-disruptively scale to meet application demands and easily manage data through the host server.

### Affordable density

As data needs continue to grow, there is a delicate balance of expanding capacity with additional storage and the finite space within a data center. The MD3060e dense enclosure or JBOD (just-a-bunch-of-disks) offers Dell servers a new affordable storage option that can also lower power and cooling expenses because of its smaller footprint. You can scale capacity without incurring the expense of additional servers or traditional storage. With the modular design of the MD3060e, you can choose the amount of capacity you need now, knowing that you can easily expand later. Plus, the 4U high-density enclosures take up less space than if you purchase the smaller form factor enclosures with the same number of hard drives.

Reduce the effort required to store and manage your data. The MD3060e dense enclosure holds up to 60 (2.5" or 3.5") hard drives. And because your storage needs are almost guaranteed to grow, you can add capacity as you need it. The 60-HDD enclosure can expand from 60 to 240 drives<sup>1</sup> when expanding to its full DAS capacity behind a single server. Imagine using less than one-half of a rack to store over a petabyte of data. When fully utilized, the MD3060e enclosures can store up to 2.4PB of data using 10TB drives.

### Established reliability

The MD3060e dense enclosure can be used in data centers to maximize storage capacity, without requiring an expansion of the footprint of the data center. This server capacity solution is designed for Dell PowerEdge R630, R730 and R730xd servers. The MD3060e supports 6Gbps SAS connectivity with a host bus adapter (HBA<sup>1</sup>), so that administrators can easily manage data through the host server and scale to meet application demands without disruption.

Because the MD3060e is built to be modular, you can add enclosures as your capacity needs grow, scaling up to four enclosures behind one server. The Dell Storage MD Series has an established track record of being a reliable storage enclosure, and the MD3060e complements the existing series by offering a dense solution to meet spatially challenged data centers.

The simple design lets you hot-swap drives, fans, EMMs and power supplies as needed. This capability offers peace-of-mind, knowing that your business will not be impacted as you manage the day-to-day operations of your data center.

### Capacity based on your design

The new Dell Storage MD3060e dense enclosure is able to scale when and how you choose, while keeping the management of your data simple and easy.

Administrators can non-disruptively scale to meet application demands. The MD3060e offers versatile options in drive types. You can mix and match 3.5" and 2.5" hard drives using your choice of NL-SAS, SAS or SSDs (solid-state disks) within the same enclosure based on your specific capacity and performance requirements.

When four MD3060e enclosures are attached to a PowerEdge server, you can maximize your storage capacity to over 2PB of data using less than one-half of a standard rack.<sup>2</sup>

### Simple data management

The MD3060e is a server storage solution designed to meet your business needs while eliminating complexity. Data can be efficiently managed through a variety of host server management tools. With the dense enclosure, you choose the operating system and software that will manage your data.

The MD3060e complements the existing Microsoft® Windows Server® 2012 R2 software currently operating on the PowerEdge servers, allowing users who are familiar with or have standardized on the Windows OS management tool to take advantage of their tightly integrated management tools. The MD3060e is simple and easy to use regardless of the user's level of familiarity with storage systems.

The MD3060e dense enclosure also supports other operating systems such as Red Hat® Enterprise Linux®, Debian, Ubuntu® and Nexenta™, ensuring that the management of your data is seamless and simple.

Save space and  
increase efficiency with  
dense storage

## Dell Storage MD3060e dense enclosure technical specifications

Feature	MD3060e
Drives	60
Drive type	Mix and match 3.5" and 2.5" SAS, NL-SAS, SSD, SED
3.5" drive capacity	NL-SAS 7.2K RPM: 500GB, 1TB <sup>1</sup> , 2TB <sup>2</sup> , 3TB <sup>3</sup> , 4TB <sup>3</sup> , 6TB, 8TB, 10TB SSD: 200GB, 400GB, 800GB (WI); 400GB, 800GB, 1.6TB (MU); 800GB, 1.6TB (RI) (available with 3.5" HDD carriers)
2.5" drive capacity	SAS 15K RPM: 146GB <sup>3</sup> , 300GB <sup>3</sup> , 600GB <sup>3</sup> SAS 10K RPM: 146GB, 300GB <sup>3</sup> , 600GB <sup>3</sup> , 900GB <sup>3</sup> , 1.2TB <sup>3</sup> NL-SAS 7.2K RPM: 500GB <sup>3</sup> , 1TB <sup>3</sup> , 2TB SSD: 200GB, 400GB, 800GB (WI); 400GB, 800GB, 1.6TB (MU); 800GB, 1.6TB (RI) 3.5" 10K and 15K HDDs are not supported on the dense model
Expansion capabilities	Up to 4 dense enclosures behind a single server
Controllers	Dual Enclosure Management Modules (EMMs)
Maximum HA host	2
Form factor	4U rack enclosure
Management software	Server controller dependent
Server support	Dell PowerEdge R630, R730 and R730xd servers
OS support	Microsoft Windows Server 2012 R2, Red Hat Enterprise Linux 6.5, Ubuntu 12.04 LTS, and Debian 7.4
Physical dimensions (height x width x depth)	177.8 mm (7.0") x 482.6 mm (19.0") x 825.5 mm (32.5")
Maximum weight	105.20 kg (232.0 lb)
<b>Environment</b>	
Power	AC: 1755W
Heat dissipation (max)	5988 BTU/hr
Voltage	220V AC, auto ranging
Frequency range	50/60Hz
Temperature	Operating: 10° to 35°C (50° to 95°F) with a maximum temperature gradation of 10°C per hour
Relative humidity	Operating: 10% to 80% (non-condensing) with a maximum humidity gradation of 10% per hour
Altitude	Operating: -30.5 m to 3000 m (-100 ft to 9,840 ft) Note: For altitudes above 2950 ft, the maximum operating temperature is derated 1.8°F/1000 ft.
OEM-ready version available on certain models	From bezel to BIOS to packaging, your servers can look and feel as if they were designed and built by you. For more information, visit <a href="http://Dell.com/OEM">Dell.com/OEM</a> .

<sup>1</sup> Requires a two-port HBA.

<sup>2</sup> Using the maximum 240 6TB hard drives.

<sup>3</sup> SED available.

## End-to-end technology solutions

Reduce IT complexity, lower costs and eliminate inefficiencies by making IT and business solutions work harder for you. You can count on Dell for end-to-end solutions to maximize your performance and uptime. A proven leader in Servers, Storage and Networking, Dell Enterprise Solutions and Services deliver innovation at any scale. And if you're looking to preserve cash or increase operational efficiency, Dell Financial Services™ has a wide range of options to make technology acquisition easy and affordable. Contact your Dell Sales Representative for more information.\*\*

## Simplify Your Storage at [Dell.com/Storage](http://Dell.com/Storage).

